

independent form. For the reasons set forth below, Applicants respectfully submit that all of the claims are allowable over the art of record.

II. INDEFINITENESS REJECTION

In paragraph 1, the Examiner has rejected claim 14 as indefinite under 35 U.S.C. § 112, second paragraph. Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

The Examiner asserts that the terminology “angle θ ” is indefinite because no reference axis is specified. However, the claim recites that the angle is formed with respect to the horizontal axis of the transducer. Accordingly, there is no ambiguity with respect to the angle θ , and a worker of skill in the art could readily determine whether a particular method is within the scope of the claim. See *In re Miller*, 169 USPQ 597 (CCPA 1971).

III. OBVIOUSNESS REJECTION OVER POHL ET AL., TEPPER ET AL.

In paragraph 2 of the Office action, the Examiner has rejected claims 1, 2, 4, 8, 9-13, 17, and 18 under 35 U.S.C. § 103(a) as obvious over Pohl et al. (U.S. Patent No. 5,578,060) in view of Teppner et al. (U.S. Patent No. 6,261,221). Applicants respectfully traverse this rejection and request reconsideration and withdrawal thereof.

The Examiner takes the position that Pohl et al. teach Applicants’ invention except for the use of a an electromagnetic coil assembly, and that this missing element is supplied by Teppner et al. The Examiner reasons that it would have been obvious to combine the reference teachings because both disclose use of a portable housing.

First, Applicants disagree that the only difference between Pohl et al. and the rejected claims is the recitation of an electromagnetic coil assembly. The entire point of the Pohl et al. device is that different settings for different "ailments" are stored, and then used to reconfigure the transducer or transducers to deliver different therapies. Pohl et al. use the term "transducer" to refer to both an ultrasonic transducer and to a separate electrode applied to the patient's skin. See column 5, lines 62-66. As shown in Figure 1 of Pohl et al., these "transducers" are separate, and applicable to widely spaced body parts. They are not "operatively associated" as this term is used in claim 1 of the present application.

Second, the Examiner has not explained why a worker of ordinary skill in the art would disregard the teachings of Pohl et al., and sacrifice the disclosed advantages of the Pohl et al. device in order to replace the electrode of Pohl et al. with an electromagnetic coil. Neither Pepper et al. nor Pohl et al. provide any suggestion that these mechanisms of electrical stimulation are interchangeable, or that they even provide the same type of electrical stimulation, or have similar effects on healing. In fact, although Pohl et al. is very vague about precisely what conditions are treatable with the electrical stimulation electrodes, the electrodes appear to be useful for pain management, muscle contraction, and wound healing. See Pohl et al. at column 3, line 67 to column 4, line 1. The PEMF coil disclosed in Pepper et al. is used to treat non-union and delayed union bone fractures. Even if the term "wound healing" were very broadly interpreted to encompass bone fractures, there is still no indication in either reference that the same mechanism of healing occurs with the electrode of Pohl et al. and the PEMF coil of Pepper et al.


Because there is no motivation to replace the electrode of Pohl et al. with a completely different mechanism, such as the PEMF coil of Tepper et al., the Examiner has failed to establish a *prima facie* case of obviousness. Even assuming, *arguendo*, that there was such motivation to combine the reference teachings, the claimed invention would not be obtained.

Simply suggesting that the devices can be “portable” is not a suggestion that the PEMF coil of Tepper et al. be operatively associated with the ultrasonic transducer of Pohl et al. To the contrary, a worker of ordinary skill in the art, in making the “combined” device portable, would strive to preserve the ability to use the PEMF coil in a location separate from site of use of the ultrasonic transducer, as shown in Figure 1 of Pohl et al. This can be achieved while still making the device “portable.”

Moreover, it is not a simple matter to combine a PEMF coil and an ultrasonic transducer in the same housing, and then use both methods of treatment simultaneously. As Applicants have pointed out (and as both references conspicuously fail to point out), an applied electromagnetic field are believed to add a fluctuating or perturbing force to the ultrasonic pressure wave. This combined effect is believed to accelerate healing of tissue. Even if the disclosures of Pohl et al. and Tepper et al. could be properly combined, they do not contain any teaching of this combined effect, or of how to make use of it. For at least these reasons, the Examiner has failed to establish a *prima facie* case of obviousness.

The Commissioner is hereby authorized to charge any deficiencies or credit any overpayment to Deposit Order Account No. 11-0855.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Bruce D. Gray', is written over a horizontal line.

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